COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

729 N.E. Oregon, Suite 200, Portland, Oregon 97232 Telephone (503) 238-0667
Fax (503) 235-4228
www.critfc.org

SYSTEM OPERATIONAL REQUEST: 2000-C3

TO:	Brigadier General Strock	COE-NWD
	William Branch	COE-NWD-NP-Water Management
	Cindy Henriksen, Rudd Turner	COE-NWD-NP-WM-RCC
	Doug Arndt, Col. R. Butler	COE-NWD-Portland
	Lt. Col. W.E. Bulen, Jr.	COE-NWD-Walla Walla
	Col. James M. Rigsby	COE-NWD-Seattle
	J. William McDonald	USBR-- Pacific Northwest Regional Director
	Judith Johansen	BPA Administrator
	Greg Delwiche, Robin MacKay	BPA-PG-5 and BPA-PGPO

FROM: Kyle Martin, *Mainstem Hydrologist*, CRITFC Hydro Program

DATE: August 1, 2000

SUBJECT: August - September 2000 Flows in the Mainstem Columbia River

SPECIFICATIONS:

1. Assume Grand Coulee at 1284.6 feet by August 6, 2000, according to the 8-1-00 TMT spreadsheet. See table below, for requested flows, in kcfs, at Grand Coulee and McNary:

Date:	Grand Coulee	McNary
Aug 7-13	115	152
Aug 14-20	115	149
Aug 21-27	115	148
Aug 28-Sep 3	113	142
Sep 4-10	104	130
Sep 11-17	100	125
Sep 18-24	99	123
Sep 25-Oct1	93	115

2. To achieve the flows specified above, reduce pumping at Banks Lake to gain 125 KaF, during August 21st through September 17th 2000.

3. Limit draft at Lake Roosevelt to 1282 feet during September (Figure 1). Pass inflow at Grand Coulee during September 4th- 24th in order to maintain stable pools in the lower Columbia.

JUSTIFICATION:

The requested operation will slowly ramp down flows, mimicking a normative, receding hydrograph in the lower Columbia (Figure 2). Current NWS-COE forecasted flow projections in the August 1, 2000 TMT spreadsheet indicate a sharp, artificial drop in mainstem flows by early September of ~30%. This dramatic drop would have negative impacts to adult salmon migrants, water quality, remaining juvenile migrants, and the Zone 6 tribal treaty fisheries.

About 80% of all the adult salmon and steelhead for the 2000 migration will be in the mainstem Columbia during the requested operations. The Columbia Basin Fish and Wildlife Authority has noted that adults are attracted to fast flowing water and that high flows favor upstream migration (CBFWA 1991). Migration delays to adult fish and increased river temperatures from reduced flows can contribute to reproductive failure (CBFWA 1991). Low flows also increase the frequency that adult fishways are operated out of criteria.

Reducing flows slowly will reduce lower river pool fluctuations in September. This is important to the treaty fishery of late August through September. If this SOR cannot be accommodated, we would like the reasons specified in a detailed written response.

Attachments

Reference

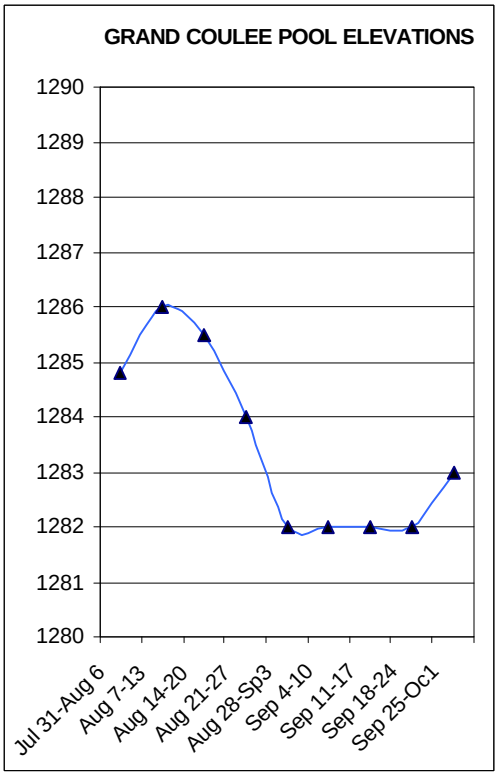
CBFWA. 1991. The biological and technical justification for the flow proposal of the Columbia Basin Fish and Wildlife Authority. Portland, Oregon.

FIGURE 1

Columbia River at Grand Coulee (GCL)

CRITFC Hydro Program

01-Aug-00 **WY 2000 SUMMER PLAN**	Outflow (CRITFC) (kcfs)	SSARR Inflow (8-1-00)	Banks (KaF)	Long Lake & Kettle R. (kcfs)	Storage Change (KaF)	GCL Pool Elevation (feet)
						Observed:
Jun 26-Jul 2						1282.4
Jul 3-9	116.2	141.1		9.8	482	1284.8
Jul 10-16	112.6	128.1		7.5	320	1286.0
Jul 17-23	110.3	107.3		5.0	28	1284.1
Jul 24-30	112.9	121.5		4.0	175	1284.6
Jul 31-Aug 6	125	123		2.8	12	1284.8
Aug 7-13	115	122		2.7	129	1286.0
Aug 14-20	115	109		2.6	-49	1285.5
Aug 21-27	115	100	10	2.6	-156	1284.0
Aug 28-Sep3	113	97	50	2.5	-140	1282.0
Sep 4-10	104	98	55	2.4	-2	1282.0
Sep 11-17	100	97	10	2.3	-6	1282.0
Sep 18-24	99	96		2.3	-4	1282.0
Sep 25-Oct1	93	97		2.3	85	1283.0



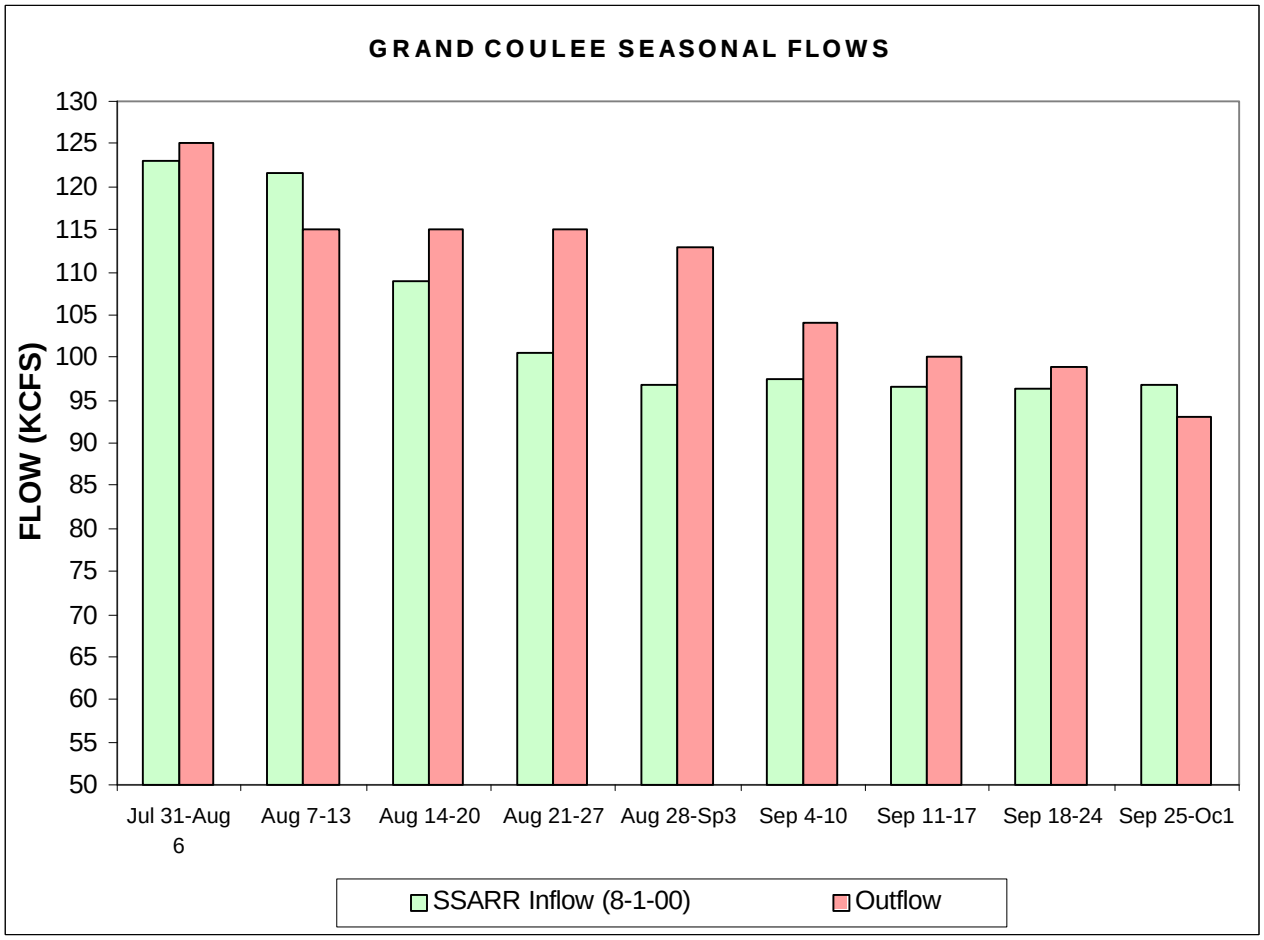
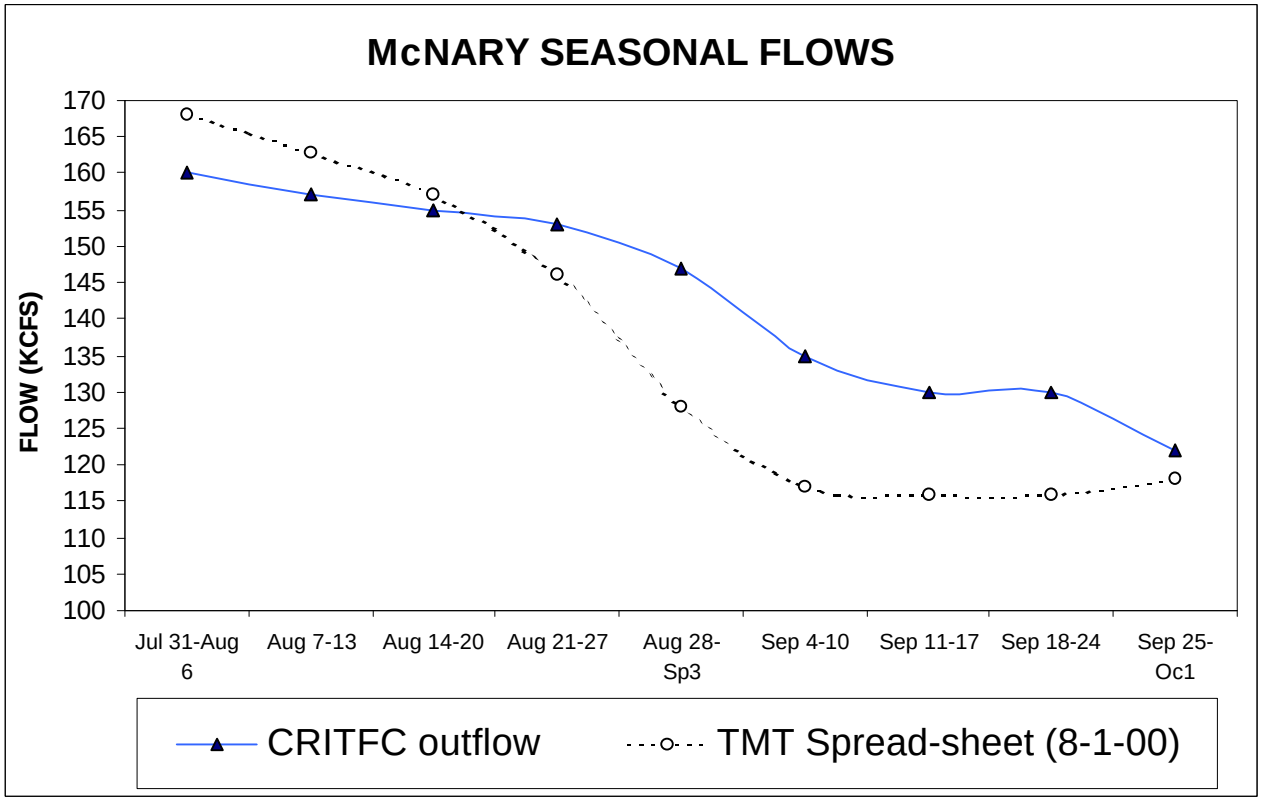

GRAND COULEE SEASONAL FLOWS
FLOW (KCFS)
130
125
120
115
110
105
100
95
90
85
80
75
70
65
60
55
50
Jul 31-Aug 6
Aug 7-13
Aug 14-20
Aug 21-27
Aug 28-Sp3
Sep 4-10
Sep 11-17
Sep 18-24
Sep 25-Oc1
SSARR Inflow (8-1-00)
Outflow

FIGURE 2


McNARY SEASONAL FLOWS
FLOW (KCFS)
170
165
160
155
150
145
140
135
130
125
120
115
110
105
100
Jul 31-Aug 6
Aug 7-13
Aug 14-20
Aug 21-27
Aug 28-Sp3
Sep 4-10
Sep 11-17
Sep 18-24
Sep 25-Oc1
CRITFC outflow
TMT Spread-sheet (8-1-00)